

This listing of claims will replace all prior versions, and listings, of claims in the application.

### LISTING OF CLAIMS

1. (currently amended) A computer-aided presentation method for a 3D subject,  
5 comprising:

acquiring data for a 2D basic image with an acquisition device;

determining the a 2D basic image of the subject by a computer based on  
the acquired data for the 2D basic image;

10 momentarily outputting the subject 2D basic image as an image via an  
output system;

determining a 2D basic presentation of a 3D volume data set of the  
subject by the computer;

15 momentarily outputting the 2D basic presentation of the 3D volume data  
set as an image via an output system, wherein the basic image and  
the basic presentation are output simultaneously, but spatially  
separate from one another by the computer; and

determining the basic presentation and basic image as perspective  
projections such that their projection parameters coincide.

- 20 2. (original) The presentation method according to claim 1, further comprising:  
determining the basic presentation in real time by the computer.

3. (original) The presentation method according to claim 1, further comprising:  
changing the basic presentation interactively.

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4. (original) The presentation method according to claim 1, wherein:

determining the basic image is performed utilizing a basic acquisition geometry, wherein the basic acquisition geometry is configured to be changed at any time.

5 5. (original) The presentation method according to claim 4, further comprising:

shifting the basic acquisition geometry by an operator into a basic acquisition position; and at least one of the following:

10 a) producing, by the computer, an acoustic or optical basic confirmation to the operator when the basic acquisition geometry is in the basic acquisition position; and

b) outputting a mechanical basic confirmation to the operator when the basic acquisition geometry is in the basic acquisition position.

6. (cancelled).

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7. (original) The presentation method according to claim 1, further comprising:

considering at least one piece of information related to the volume data set by the computer at a corresponding location of the basic image.

20 8. (original) The presentation method according to claim 1, further comprising:

considering at least one location-dependent piece of information related to the subject by the computer at a corresponding location of the basic presentation.

25 9. (currently amended) The presentation method according to claim 1, further comprising:

acquiring data for a 2D auxiliary image with an acquisition device;

determining the a 2D auxiliary image of the subject that is different from  
the basic image of the subject by the computer, based on the  
acquired data for the 2D auxiliary image;

5 temporarily outputting the auxiliary image by the computer as an image via  
the output system; and

simultaneously outputting the auxiliary image of the subject with the basic  
presentation and the basic image, but spatially separate from  
these.

10 10. (original) The presentation method according to claim 9, wherein

determining the auxiliary image is performed utilizing an auxiliary  
acquisition geometry, wherein the auxiliary acquisition geometry is  
configured to be changed at any time.

15 11. (original) The presentation method according to claim 10, further comprising:  
manually shifting the auxiliary acquisition geometry by an operator into an  
auxiliary acquisition position, and at least one of the following:

20 a) producing, by the computer, acoustic or optical auxiliary confirmation to  
the operator when the auxiliary acquisition geometry is in the  
auxiliary acquisition position; and

b) outputting a mechanical confirmation to the operator when the auxiliary  
acquisition geometry is in the auxiliary acquisition position.

12. (currently amended) The presentation method according to claim 9, wherein:

25 determining the basic image is performed utilizing a basic acquisition  
geometry, wherein the basic acquisition geometry is configured to  
be changed at any time; and

5 determining the auxiliary image is performed utilizing an auxiliary acquisition geometry, wherein the auxiliary acquisition geometry is configured to be changed at any time, the basic acquisition geometry exhibiting a basic image main axis, and the auxiliary acquisition geometry exhibiting an auxiliary image main axis, the basic image main axis and the auxiliary image main axis intersecting at a common intersection point at an angle of intersection  $\alpha$ .

10 13. (original) The presentation method according to claim 12, further comprising:  
determining the auxiliary image relative to the basic image, such that the angle of intersection is  $90^\circ$ .

15 14. (currently amended) ~~The presentation method according to claim 12, further comprising:~~

A computer-aided presentation method for a 3D subject, comprising:

determining a 2D basic image of the subject by a computer;

momentarily outputting the subject 2D basic image as an image via an output system;

20 determining a 2D basic presentation of a 3D volume data set of the subject by the computer;

momentarily outputting the 2D basic presentation of the 3D volume data set as an image via an output system, wherein the basic image and the basic presentation are output simultaneously, but spatially separate from one another by the computer;

25 determining a 2D auxiliary image of the subject that is different from the basic image of the subject by the computer;

temporarily outputting the auxiliary image by the computer as an image via the output system;

simultaneously outputting the auxiliary image of the subject with the basic presentation and the basic image, but spatially separate from these;

determining the basic image is performed utilizing a basic acquisition geometry, wherein the basic acquisition geometry is configured to be changed at any time;

determining the auxiliary image is performed utilizing an auxiliary acquisition geometry, wherein the auxiliary acquisition geometry is configured to be changed at any time, the basic acquisition geometry exhibiting a basic image main axis, and the auxiliary acquisition geometry exhibiting an auxiliary image main axis, the basic image main axis and the auxiliary image main axis intersecting at a common intersection point at an angle of intersection  $\alpha$ ;

maximizing the angle of intersection  $\alpha$  in terms of design conditions so that it is as large as a critical angle that is smaller than  $90^\circ$ , and determining the auxiliary image relative to the basic image such that the angle of intersection  $\alpha$  is the same as the critical angle.

15. (original) The presentation method according to claim 9, further comprising:

determining a 2D auxiliary presentation of the volume data set that is different from the basic presentation of the volume data set by the computer,

temporarily outputting the auxiliary presentation by the computer as an image via the output system; and

simultaneously outputting the auxiliary presentation with the basic image and the basic presentation, but spatially separate from these.

16. (original) The presentation method according to claim 15, wherein the auxiliary presentation is spatially separate from the auxiliary image.

5 17. (original) The presentation method according to claim 15, further comprising:  
determining the auxiliary presentation in real time by the computer.

18. (original) The presentation method according to claim 15, wherein the auxiliary presentation can be changed interactively.

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19. (original) The presentation method according to claim 15, further comprising:  
determining the auxiliary presentation and the auxiliary image as  
perspective projections and such that their projection parameters  
coincide.

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20. (original) The presentation method according to claim 15, further comprising:  
determining a 2D supplementary presentation of the volume data set  
independent of both the basic presentation and the auxiliary  
presentation by the computer;

20 temporarily outputting the supplementary presentation by the computer as  
an image via the output system; and

simultaneously outputting the supplementary presentation with the basic  
image, the basic presentation, and the auxiliary presentation, but  
spatially separate from these.

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21. (original) The presentation method according to claim 20, wherein  
supplementary presentation is spatially separate from the auxiliary image.

22. (original) The presentation method according to claim 20, further comprising:  
determining the supplementary presentation in real time.

5 23. (original) The presentation method according to claim 20, wherein the  
supplementary presentation can be changed interactively.

24. (original) The presentation method according to claim 1, wherein the images  
and the presentations are respectively output each via its own output device

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25. (original) The presentation method according to claim 24, wherein at least  
one output devices is a monitor of the output system.

15 26. (original) The presentation method according to claim 1, wherein the  
presentations of the volume data set are sections or perspective projections.

27. (original) The presentation method according to claim 1, wherein the images  
of the subject are perspective projections.

20 28. (original) The presentation method according claim 9, wherein at least one of  
to any the basic image and the auxiliary image is determined via x-ray radiation  
or via ultrasound.

25 29. (original) A computer program for implementation of a presentation method  
according to claim 1.

30. (original) A computer programmed with a computer program according to claim 29.

31. (original) The computer according to claim 30, that is configured as a control  
5 computer for an imaging modality.

32. (original) An imaging modality comprising with a control computer according to claim 31.

10 33. (original) The imaging modality according to claim 32, wherein the imaging modality is an x-ray system.